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World Intellectual Property Organization (WIPO) - Geneva, Switzerland  
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*April 12, 2005*

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**APPLICATION NUMBER: 60/556,922**

**FILING DATE: *March 26, 2004***

**RELATED PCT APPLICATION NUMBER: *PCT/US05/09241***



Certified by

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PTO/SB/16 (02-01)  
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## PROVISIONAL APPLICATION FOR PATENT COVER SHEET

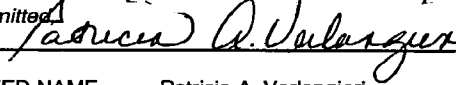
This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53 (c).

Express Mail Label No. EV441452403US

INVENTOR(S)					
Given Name (first and middle [if any])		Family Name or Surname		Residence (City and either State or Foreign Country)	
Scott Joseph Darin Bradley		Duggan Ritter		Indianapolis, Indiana Indianapolis, Indiana	
<input checked="" type="checkbox"/> Additional inventors are being named on the 1 separately numbered sheets attached hereto					
TITLE OF THE INVENTION (280 characters max)					
INTERLOCKING HINGE MOUNT FOR TOP SCREEN FRAME OF A PROJECTION DISPLAY					
CORRESPONDENCE ADDRESS					
Direct all correspondence to:					
<input type="checkbox"/> Customer Number					
OR Type Customer Number here					
<input checked="" type="checkbox"/> Firm or Individual Name		JOSEPH S. TRIPOLI, THOMSON LICENSING INC.			
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Country		USA		ZIP	08543-5312
		Telephone	609-734-6834	Fax	609-734-6888
ENCLOSED APPLICATION PARTS (check all that apply)					
<input checked="" type="checkbox"/> Specification Number of Pages		2		<input type="checkbox"/> CD(s), Number 	
<input checked="" type="checkbox"/> Drawing(s) Number of Sheets		2		<input type="checkbox"/> Other (specify) 	
<input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76					
METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one)					
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27.					
<input type="checkbox"/> A check or money order is enclosed to cover the filing fees					
<input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number:				FILING FEE AMOUNT (\$)	
<input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached.				160	
The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.					
<input checked="" type="checkbox"/> No.					
<input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____					

Respectfully submitted,

SIGNATURE



Date

3/26/04

TYPED or PRINTED NAME

Patricia A. Verlangeri

REGISTRATION NO.  
(if appropriate)

42,201

Docket Number:

PU040078

TELEPHONE 609 734-6867

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17510 U.S. PTO  
 60/556922



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**PROVISIONAL APPLICATION COVER SHEET**  
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Docket Number	PU040078	Type a plus sign (+) inside this box →	+
<b>INVENTOR(S)/APPLICANT(S)</b>			
Given Name (first and middle [if any])	Family or Surname	Residence (City and either State or Foreign Country)	
Jon William	Kangas	Greenwood, Indiana	

Number 1 of 1

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# FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

**TOTAL AMOUNT OF PAYMENT** (\$) 160

## Complete if Known

Application Number	
Filing Date	March 26, 2004
First Named Inventor	Scott Joseph Duggan et al.
Examiner Name	
Art Unit	
Attorney Docket No.	PU040078

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number: 07-0832

Deposit Account Name: THOMSON LICENSING INC.

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments  
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## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	160

**SUBTOTAL (1)** (\$) 160

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims: 10 -20 \*\* = 0 X Fee from below = 0  
 Independent Claims: 2 -3 \*\* = 0 X Fee from below = 0  
 Multiple Dependent: X Fee from below = 0

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)** (\$) 0

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17 (q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

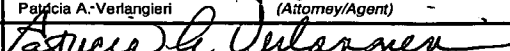
Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3)** (\$) 0

## SUBMITTED BY

## Complete (if applicable)

Name (Print/Type)	Patricia A. Verlangeri	Registration No. (Attorney/Agent)	42,201	Telephone	(609) 734-6867
Signature				Date	March 26, 2004

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## **INTERLOCKING HINGE MOUNT FOR TOP SCREEN FRAME OF A PROJECTION DISPLAY**

### **FIELD OF THE INVENTION**

The invention relates generally to a projection display and, in particular a frame for a projection display screen.

### **BACKGROUND OF THE INVENTION**

A problem that all projection display televisions have is keeping the top edge of the screen straight and in the proper location. Plastic cabinets provide nice aesthetics but have a tendency to bow along the top edge, aggravating the ability to keep the top edge of the screen straight and in location. This is an even more severe problem on projection display televisions that incorporate upangle optics because such televisions require a more accurate screen location with respect to the optics.

Prior art techniques that are used to hold the top edge of the screen include screws from behind the set that drive into bosses in the screen frame. However, access to the screws is a problem if the set is hanging on the wall. Another prior art technique uses metal brackets or wooden blocks along the top edge of the cabinet that allow the screen frame to hook on and swing down into position. However, these mounting systems rely on the straightness and stiffness of the basic cabinet to keep the top edge of the screen straight and in location. These blocks or brackets are always intermittent and do not hold the screen along its entire length which may lead to slight undulations in the top edge of the screen frame.

**DETAILED DESCRIPTION**

The present invention, shown in FIGS. 1-3, provides an extruded metal hinge mechanism that keeps the top of the projection display television screen frame straight and allows the screen assembly to be removed from the front with no screws.

Two aluminum extrusions work in concert as a continuous stiffener for the screen frame and cabinet and also incorporate a hinge detail that allows the screen frame to be easily removed from the front of the set without removing screws from behind. By being continuous, the two aluminum extrusions keep the top edge of the screen and screen frame straight.

When mounted to a plastic cabinet, these extrusions form a low profile, structural member along the top edge of the cabinet. This structural member can be tied into other structural members of the cabinet to help maintain the critical location of the screen frame. Along with being very low cost to tool, aluminum extrusions tend to be inherently straight, stiff and stable as compared to other parts such as plastic extrusions, formed sheet metal, wood, or molded plastic.

Additionally, since the extrusions are linear, it is relatively inexpensive to incorporate "light stop" details that reduce harmful effects of stray light in the cabinet. This basic hinge concept is also applicable with roll formed sheet metal or sheet metal parts made on progressive dies.

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FIGURE 1: THE SCREEN FRAME ASSEMBLED TO THE UPPERMAIN FROM THE FRONT AND THE BACK

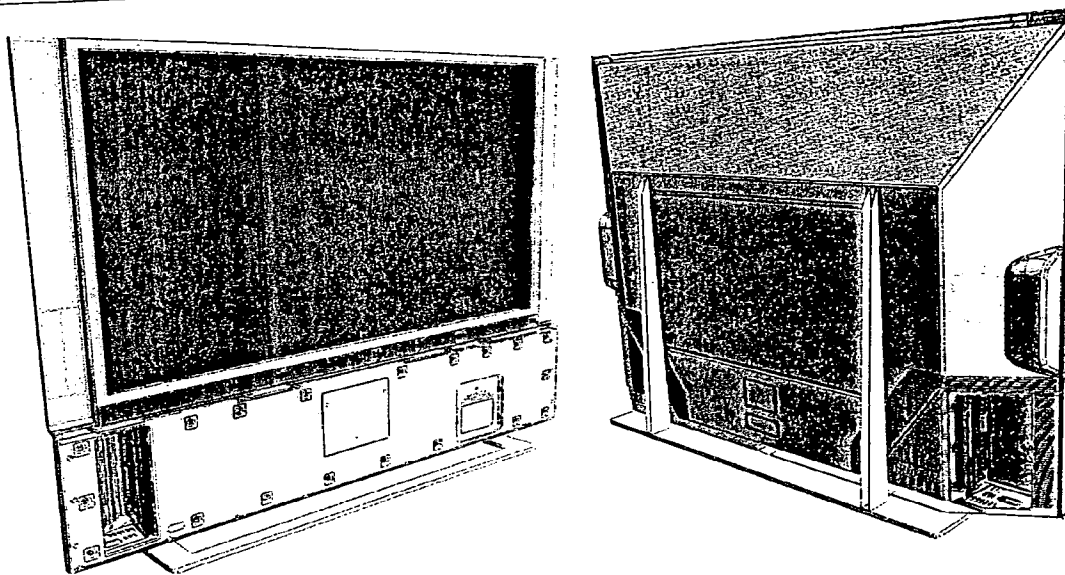


FIGURE 2: THE HINGE ASSEMBLED AND EXPLODED

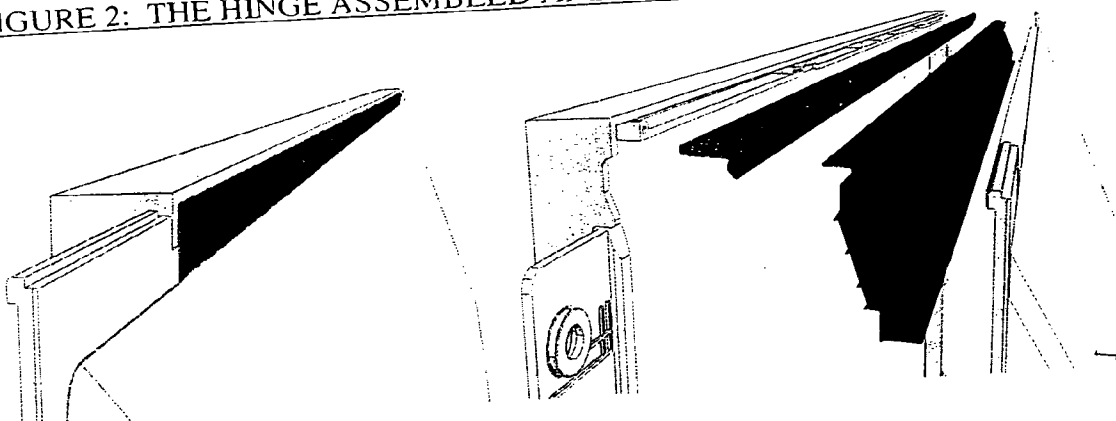


FIGURE 3: SECTIONS OF THE HINGE BEFORE AND AFTER ASSEMBLY

